

Abstracts

409

another 3.6 million are at an increased risk. In men over 64 years of age, 80% of hip fractures are attributed to osteoporosis, costing a national direct expenditure of \$13.8 billion in 2000. Earliest diagnosis is through a bone density test, which could help in prevention of hip fractures and significant savings in health care costs. This study examines the various physician and patient factors, which influence the bone density test prescribing for osteoporosis in male ambulatory patients. **METHODS:** Patient factors such as age, race, geographical location and payment source, and Physician factors such as specialty and referral status were used to determine their influence on the number of bone density tests prescribed. Data from the National Ambulatory Medical Care Survey (NAMCS) 2002 were utilized. Male patients with principal diagnosis of osteoporosis (ICD-9-CM code 733.00) with age more than or equal to 50 years were analyzed using multiple linear and binomial logit regression models. **RESULTS:** The number of bone density tests performed were independent of patients' geographic region ($R^2 = 0.111$). White patients were prescribed more bone density tests compared to other races ($R^2 = 0.436$). Patients above 75 years of age and patients with Federal source of payments were prescribed more bone density tests than other patients ($R^2 = 0.345$). Numbers of bone density tests were not influenced by whether the patient was referred ($R^2 = 0.027$). Family Practice physicians prescribed more bone density tests compared to other specialties ($R^2 = 0.326$). **CONCLUSIONS:** The numbers of bone density tests prescribed are significantly influenced by patients' race, age and source of payments, and physician's specialty. Bone density screening for men over 50 years of age appears to be an optimal approach to manage osteoporosis in men.

POSS

POST-OSTEOPOROTIC FRACTURE DRUG TREATMENT FOR OSTEOPOROSIS IN NURSING HOME ELDERLY

Ye X, Eberly LE, Harms SL, Garrard JM

University of Minnesota, Minneapolis, MN, USA

OBJECTIVES: A preexisting fracture is a very strong predictor of subsequent osteoporotic fractures, emphasizing the need to aggressively treat patients with existing osteoporotic fractures. The objectives of the study are to examine the prevalence of drug treatment and factors associated with drug treatment among elderly nursing home (NH) admissions with an indication of osteoporotic fracture. **METHODS:** The Minimum Data Set for Nursing Home Assessment and Care Screening (MDS) Version 2.0 and physicians' medication orders from 1999 were utilized for this study. The outcome was the use of anti-osteoporotic drug therapy at NH admission. Independent variables included patient demographics, comorbidities, functional capabilities (activities of daily living or ADLs), and cognitive performance (MDS-COGS). Multivariate analysis was conducted using logistic regression with Generalized Estimating Equations (GEE) to adjust for clustering within NH facilities. **RESULTS:** A total of 2673 NH residents were identified with documentation of osteoporotic fracture within 180 days or affecting current care at admission; however, only 642 (24.02%) received anti-osteoporotic drug therapy at admission. Gender ($p < 0.0001$), age ($p = 0.0394$), and functional capabilities ($p = 0.0002$) were significantly associated with the use of anti-osteoporotic drug. Non-significant factors were region, race, education, comorbidity and cognition. Treatment was less likely for male residents (OR: 0.45; 95% CI, 0.33–0.62) and residents older than 85 (OR: 0.79; 95% CI, 0.67–0.97). Those who were independent in terms of ADLs were more likely to receive drug treatment (OR: 2.54; 95% CI, 1.27–5.07), compared to those who were fully dependent. **CONCLUSIONS:** While osteoporotic fracture is common

among the NH elderly population, the majority remained untreated. Increasing age was inversely related to receipt of anti-osteoporotic drugs. Female elderly and those with fewer limitations in daily activities were more likely to receive drug therapy for osteoporosis.

POS6

IMPACT OF AN OSTEOPOROSIS INTERVENTION PROGRAM OF PATIENTS WITH A FRACTURE HISTORY

Park J¹, Ara SB²¹Health Net Pharmaceutical Services, San Bernardino, CA, USA;²Health Net Pharmaceutical Services, Woodland Hills, CA, USA

OBJECTIVE: To evaluate the impact of an osteoporosis therapy intervention program in a health plan setting. **METHODS:** A clinical team of pharmacists, obstetricians/gynecologists and endocrinologists designed and implemented an educational initiative for physicians and members. Medical and pharmacy claims data for female enrollees over the age of 40 were retrieved for the time period of July, 2002 through June, 2003. Criteria for targeted patients included a fracture history (defined by ICD-9 and CPT codes) and negative history of estrogen/progestin use over the 1-year period, and four-month negative history of osteoporosis therapy (alendronate, risedronate, calcitonin, raloxifene, or teriparatide). Physicians received a patient list, an educational tool for management of osteoporosis and coupons for a free first-month supply of a bisphosphonate. Targeted members received a 17-page handbook highlighting drug treatment, lifestyle modifications, and information regarding prescription drug discount programs. The impact of the intervention was analyzed using pharmacy claims data for eligible patients with pharmacy benefits. Primary outcome measure was defined as the percent of patients with a claim for an osteoporosis agent at three, six, and nine-months post-intervention. Additionally, a member survey was conducted six-months post-intervention to evaluate the member mailing. **RESULTS:** There were 1612 program participants. At three, six and nine-months respectively, 3.76% (32/852), 5.12% (40/781) and 5.97% (42/704) of eligible patients had a claim for an osteoporosis agent. A 23% survey response rate was achieved (364/1612). Survey results indicated 18% of responders were taking prescription osteoporosis medications at that time. Post-intervention, 19% of the responders made a doctor appointment, 15% attended the appointment, 17% received a prescription, 13% received medication samples, and 11% filled the prescription. **CONCLUSION:** Survey results indicate higher rate of medication use compared to claims database analysis, which does not capture medication sampling. Another mailing has been done to continue to improve osteoporosis care.

POS7

VALIDATION STUDY OF THE OSTEOPOROSIS PATIENT SATISFACTION QUESTIONNAIRE (OPSAT-Q)

Flood E¹, Beusterien K¹, Baran R², Shikier R³, Cella D⁴¹MEDTAP International, Bethesda, MD, USA; ²Roche Laboratories Inc, Nutley, NJ, USA; ³MEDTAP International, Seattle, WA, USA; ⁴Evanston Northwestern Healthcare, Evanston, IL, USA

OBJECTIVE: Several features of bisphosphonate therapy for osteoporosis may influence patient satisfaction, including dosing convenience. The objective of this study was to evaluate the psychometric characteristics of the Osteoporosis Patient Satisfaction Questionnaire (OPSAT-Q), which assesses patient satisfaction with osteoporosis treatment. **METHODS:** Patient focus groups and cognitive debriefings informed the development of the 16-item OPSAT-Q, which contains four subscales: Convenience, Confidence with Daily Activities, Side Effects and Overall Satis-